

FLATHEAD COUNTY PLANNING AND ZONING OFFICE
MAJOR IMPACT LAKE AND LAKESHORE CONSTRUCTION PERMIT (#FLP-16-62)
LANE ROSS
SEPTEMBER 27, 2016

A report regarding a request by Lane Ross for a lakeshore construction permit to utilize mechanized aquatic vegetation cutting within the lagoon known as North Shore Harbor in Bigfork. The mechanized cutting of aquatic vegetation on Flathead Lake has been determined by the Planning Director to create a significant impact requiring Planning Board review and recommendation to the Flathead County Commissioners, per Section 3.2(C)(b) of the Flathead County Lake and Lakeshore Protection Regulations.

I. APPLICATION REVIEW UPDATES

A. Planning Board

This space is reserved for an update regarding the September 14, 2016 Flathead County Planning Board review of the proposed lakeshore construction permit.

B. Commission

This space is reserved for an update regarding the Flathead County Commissioner review of the proposed lakeshore construction permit.

II. GENERAL INFORMATION

A. Application Personnel

i. Applicant

Lane Ross
Aquatic Weed Abatement of Montana
315 Meadow Hills Drive
Kalispell, MT 59901
(406) 871-3718

ii. Owners

North Shore Harbor Association
P.O. Box 183
Bigfork, MT 59911

Bigfork Shores Landowners Association
P.O. Box 504
Bigfork, MT 59911

Bigfork Marina Association
P.O. Box 8600
Kalispell, MT 59904

Montana Department of Transportation
P.O. Box 7308
Kalispell, MT 59904

B. Property Location

The subject property is within the manmade harbor located on Flathead Lake known as North Shore Harbor. The harbor is owned by the North Shore Harbor Association, Inc., Bigfork Shores Landowners Association, Bigfork Marina Association, as well as Montana Department of Transportation (see Figure 1 below). The portion of the harbor that will be mowed can be legally described as Tracts 20EA, BW2, 20E, and 8CDA all located in Section 36, Township 27 North, Range 20 West, P.M.M., Flathead County, Montana.

Figure 1: Subject properties (outlined in red)



Figure 2: Area of vegetation removal (outlined in white)



C. Summary of Request

This is an application submitted by Lane Ross on behalf of the North Shore Harbor Association, Inc., Bigfork Shores Landowners Association, Bigfork Marina Association to utilize an aquatic weed mower to remove vegetation within the North Shore Harbor. Approximately 1.6 acres will be mowed and all cut weed segments will be collected and taken off site.

The application was received on July 20, 2016 and a determination that project would cause a significant impact was made on August 1, 2016 after supplemental answers were received. The application was determined to be significant based on the extent of the area to be mowed and the impacts large swaths of weed removal will have on aquatic wildlife and habitat. A more detailed application with vicinity and project maps were received by our office on August 18 and August 23, 2016.

D. Agency Referrals

Referrals were sent to the following agencies on August 29, 2016 after a completed application was received on August 23. The agencies that were sent requests for agency referrals are as follows:

- Montana Fish, Wildlife & Parks
Reason: The mass cutting of vegetation within the waters of the lake may affect habitat for aquatic species within the lake, or recreation within the lake.
- U.S. Army Corps of Engineers
Reason: The mass cutting of vegetation with mechanized equipment within the water of the lake may have a negative impact on the lakebed.
- Flathead County Weed Control Department
Reason: The vegetation being cut from the waters of Flathead Lake are within the borders of Flathead County.

III. COMMENTS RECEIVED

A. Agency Comments

The following is a summarized list of agency comment received as of the date of the completion of this staff report:

- Christina Schroeder, US Army Corps of Engineers
 - Comment: “We don't regulate mowing or clearing if the material is just cut and dropped in place. ... So, in summary, just cutting it and letting it fall or drift is not regulated. Gathering and piling them up is only regulated if the piles are in wetlands or the lake or other waters.”
- Thomas Boos, Montana Fish, Wildlife and Parks
 - Comment: Provided a copy of the agreement between Aquatic Weed Abatement of Montana, LLC and Montana Fish, Wildlife and Parks (signed copy included in the file)

IV. EVALUATION OF REQUEST:

The criteria set forth in the Flathead County Lake & Lakeshore Protection Regulations Section 4.1 Policy Criteria for Issuance of a Permit were used to determine findings of fact and to evaluate the significant impact lakeshore construction permit request as outlined below:

A. Materially diminish water quality.

The applicant has requested a permit to utilize an aquatic weed harvester to cut western waterweed within the North Shore Harbor. The homeowners associations would like the vegetation removed in front of the docks within the area illustrated in Figure 2

above. While overgrown vegetation may be considered a nuisance as it impacts boating, fishing and swimming, the protection of aquatic vegetation is important for long-term water quality. Specifically, a healthy flora of aquatic vegetation is important for absorbing phosphorus and nitrogen and reducing the amount of algae by making nutrients less available for algae growth.

Because the applicant intends to cut the vegetation rather than pull them up by the root, water quality may be impacted as some cuttings may escape the harvester's clipping collector. This is especially noteworthy if aquatic invasive species (AIS) are located in the area of activity which may potentially infect other areas of the lake. The North Shore Harbor has been identified as an area with curlyleaf pondweed (CLP), an aquatic invasive species, and therefore the activity may cause the spread of CLP if not adequately monitored during and after this activity. Comments from the Flathead County Weed Department and the Flathead Basin Commission suggest that 3rd party inspection of the mechanical harvester and area of activity should be required each time the applicant requests to do work so as not to spread AIS within or to other water bodies. In order to avoid this, the applicant and Montana Fish, Wildlife and Parks (FWP) entered into an agreement in which FWP will make a determination of the presence of AIS in the area of work, will inspect the vessel before work is done, and will clean all equipment to the satisfaction of FWP before and after work is completed. Thomas Boos, FWP's aquatic invasive species coordinator forwarded a copy of the agreement and indicated via phone on September 20th that the agreement has been satisfactorily followed by Lane Ross. Since the agreement will terminate on October 31, 2016 and the applicants do not plan on conducting the work until spring/early summer of next year, the agreement should be extended into October 2017.

In addition, the machine utilizes aquatic grade vegetable oil to lubricate the hydraulics that come in contact with the water and a spill containment kit utilizing floats and absorbent pads is on board to clean up mechanical fluids in the event of a spill or leak. The harvester also utilizes a guard that prevents the cutting blades from coming in contact with the lake bottom which prevents rutting, gouging or excess siltation of the lake bottom.

Finding #1: The proposed activity may materially diminish water quality because curlyleaf pondweed, an aquatic invasive species, has been found within the North Shore harbor and may be spread via fragmentation along with other aquatic vegetation if the mechanical harvester is not adequately monitored and operated.

Finding #2: The impacts to water quality appear to be mitigated because an agreement signed in April 2016 between Montana Fish, Wildlife and Parks and the applicant has been established to avoid the spread of aquatic invasive species by requiring Montana Fish, Wildlife and Parks inspection of the work site and transportation and operation of the mechanical harvester.

B. Materially diminish habitat for fish or wildlife

The application notes that the vegetation will be cut and not removed from the bed by the roots. Because of this, it is expected that the vegetation will eventually come back and any loss of fish habitat will be temporary. It is also noted that because of the location of docks and bottom debris, not all vegetation will be removed. According to comments received from Montana Fish, Wildlife and Parks from the previous instance of aquatic weed harvesting, large scale vegetation removal has the potential to damage food webs as aquatic plants provide food, foraging habitat and escape habitat for a number of aquatic species. Because the applicants are proposing to clear a 1 acre area

around the docks and not the entire marina, it would appear that the minimum amount of vegetation removal has been proposed to accomplish the goals of the homeowners associations.

While the applicant has explained that the operator of the weed harvester can see the fish, turtles and crawdads that might get stuck in the belt of the mower, small fish are likely to get stuck within the mower. Additionally, comment from the Flathead Lakers explains that if invasive aquatic species are introduced to the area via an inadequately decontaminated machine or via fragmentation and reestablishment, the invasive species may overtake native plant species and disrupt aquatic habitat stability. However, the spread of CLP or other aquatic invasive species appears to be mitigated via the agreement for decontamination of the harvester.

Finding #3: Impacts to fish and wildlife habitat appear to be acceptable with conditions because impacts will be temporary as the mechanical harvester will not remove the vegetation by the roots, the minimum amount of removal has been proposed to adequately meet homeowners enjoyment of the harbor and infestation of aquatic invasive species which could disrupt habitat stability will be avoided if decontamination and operation of the harvester is done as outlined in the agreement between Montana Fish, Wildlife and Parks and the applicant.

C. Interfere with navigation or other lawful recreation.

According to the application, the vegetation is removed to facilitate movement for the boats within the harbor. To this end, the use of the mechanical harvester will improve navigation and recreation within the harbor. Because the area to be mowed is relatively narrow, with only 80 feet width at the narrowest end, the operator may interfere temporarily with navigation of boats entering and exiting the harbor. The application notes that the “operator is aware of boat traffic and waits if the canal gets busy.” The brochure also mentions that approximately 1 acre can be mowed with the large machine within 1 hour and work takes place no earlier than 8 AM and no later than 7 PM. It would appear that delays may occur if the work is done at peak boating time but will not interfere with navigation or lawful recreation for more than a short period of time.

Finding #4: It does not appear that the mass mechanized removal of aquatic vegetation would interfere with navigation or other lawful recreation because the applicant is being hired by his individual clients to open up navigable areas of water for boats to move more freely and navigation will likely be hindered for only a short period of time due to the size of the area if mowing takes place during non-peak boating times.

D. Create a public nuisance.

According to the applicant, the proposed work is being done to reduce the amount of vegetation within the harbor which is a nuisance to property owners who use boats and get weeds tangled in their propellers. An overabundance of aquatic vegetation can impact recreational activities such as boating, swimming and fishing and if left unmanaged can impact property values. Because of these issues, some homeowners believe that the vegetation is a public nuisance. However, native aquatic vegetation is a natural characteristic of a lake and thus may not be strictly considered a public nuisance. One exception to this is the spread of aquatic invasive species which can disrupt the habitat of natural vegetation and wildlife and are costly to control once spread. Because curlyleaf pondweed, an aquatic invasive species, has been identified within the North Shore Harbor, there is potential for the spread of curlyleaf pondweed which can be spread via fragmentation which is possible when operating a mechanical

weed harvester. In order to avoid the spread of aquatic invasive species, the applicant has worked with Fish, Wildlife and Parks to decontaminate the harvester and prevent the spread of invasive species due to using the equipment. Therefore the proposed use will reduce the perceived public nuisance of thick vegetation and avoid spreading invasive aquatic species which are a costly nuisance to manage if the applicant abides by the agreement with Fish, Wildlife and Parks.

Finding #5: The proposed activity does not appear to create a public nuisance if operated and maintained as conditioned because the harvester will remove overgrown vegetation which can impede recreational use of the harbor and the spread of aquatic invasive species as a result of the activity will be minimal if the harvester is decontaminated and operated as outlined in the application and agreement with Fish, Wildlife and Parks.

E. Create a visual impact discordant with natural scenic values, as determined by the governing body, where such values form the predominant landscape elements.

Native aquatic vegetation is a natural aspect of water bodies, however, overgrowth of vegetation, especially aquatic invasive species, may not be considered a “natural scenic value” of a harbor. Because there are no guidelines within the Flathead County Lake and Lakeshore Protection Regulations regarding an ideal density of aquatic vegetation, the visual impact is subjective. Cutting the vegetation rather than removing plants is ideal as regrowth of the plants will occur over time. While the purpose of the activity is to manage vegetation density, fragmentation of the plants may lead to thickened vegetation over time as the species reproduce from the clippings. Fragmentation can also lead to a visual impact if these cuttings are allowed to remain within the harbor to float and collect. The application notes that the harvester will collect almost all of the clippings, however some fragments are expected to be left in the harbor. The applicant should be conditioned to collect as many of these fragments as possible after the work has been completed.

Finding #6: Although floating plant fragments may cause a visual impact discordant with natural scenic values, the work is being done to manage overgrowth of vegetation and the applicant will be required to manually collect left over fragments after the mechanical weed harvesting is complete.

F. Alter the characteristic of the shoreline

The removal of the aquatic vegetation will take place within a manmade harbor that is significantly lined with concrete. No natural shoreline exists where the vegetation will be removed.

Finding #7: Removal of the aquatic vegetation does not appear to affect the characteristic of the shoreline because the location of the work will be within a manmade harbor that is significantly lined with concrete.

V. SUMMARY OF FINDINGS

Finding #1: The proposed activity may materially diminish water quality because curlyleaf pondweed, an aquatic invasive species, has been found within the North Shore harbor and may be spread via fragmentation along with other aquatic vegetation if the mechanical harvester is not adequately monitored and operated.

Finding #2: The impacts to water quality appear to be mitigated because an agreement signed in April 2016 between Montana Fish, Wildlife and Parks and the applicant has been established to avoid the spread of aquatic invasive species by requiring Montana Fish, Wildlife and Parks inspection of the work site and transportation and operation of the mechanical harvester.

Finding #3: Impacts to fish and wildlife habitat appear to be acceptable with conditions because impacts will be temporary as the mechanical harvester will not remove the vegetation by the roots, the minimum amount of removal has been proposed to adequately meet homeowners enjoyment of the harbor and infestation of aquatic invasive species which could disrupt habitat stability will be avoided if decontamination and operation of the harvester is done as outlined in the agreement between Montana Fish, Wildlife and Parks and the applicant.

Finding #4: It does not appear that the mass mechanized removal of aquatic vegetation would interfere with navigation or other lawful recreation because the applicant is being hired by his individual clients to open up navigable areas of water for boats to move more freely and navigation will likely be hindered for only a short period of time due to the size of the area if mowing takes place during non-peak boating times.

Finding #5: The proposed activity does not appear to create a public nuisance if operated and maintained as conditioned because the harvester will remove overgrown vegetation which can impede recreational use of the harbor and the spread of aquatic invasive species as a result of the activity will be minimal if the harvester is decontaminated and operated as outlined in the application and agreement with Fish, Wildlife and Parks.

Finding #6: Although floating plant fragments may cause a visual impact discordant with natural scenic values, the work is being done to manage overgrowth of vegetation and the applicant will be required to manually collect left over fragments after the mechanical weed harvesting is complete.

Finding #7: Removal of the aquatic vegetation does not appear to affect the characteristic of the shoreline because the location of the work will be within a manmade harbor that is significantly lined with concrete.

VI. CONCLUSION:

Per Section 3.3 and 4.1 of the Flathead County Lake and Lakeshore Protection Regulations a review and evaluation by staff comparing the requested application for a lakeshore construction permit for the mass mechanized cutting of approximately 1.4 acres of aquatic vegetation within the waters of Flathead Lake to the general criteria for issuance of a permit has found the proposal complies with all of the review criteria, based upon the draft Findings of Fact presented above. It appears that the activity in question meets the majority of the policy criteria for issuance of a permit.

Planner: RE